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*DB=USPT,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ*

L11 L9 same (cytokine\$ or lymphokine\$)

163 L11

*DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ*

L10 L9 same (cytokine\$ or lymphokine\$)

327 L10

L9 ('gm-csf') same (cancer\$ or tumor\$ or tumour\$)same (combine\$ or combination)

622 L9

*DB=JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ*

L8 L7 and ('gm-csf')

6 L8

L7 ('flt3-ligand' or flt3) same (cancer\$ or tumor\$ or tumour\$)

20 L7

*DB=USPT,PGPB; PLUR=YES; OP=ADJ*

L6 L5.clm.

27 L6

L5 L4 same (antigen\$ or vaccin\$)

791 L5

L4 ('gm-csf') same (cancer\$ or tumor\$ or tumour\$)

2603 L4

L3 L2.clm.

6 L3

L2 ('flt3-ligand' or flt3) same (cancer\$ or tumor\$ or tumour\$)

131 L2

L1 ('flt3-ligand' or flt3) and (cancer\$ or tumor\$ or tumour\$)

294 L1

END OF SEARCH HISTORY

# WEST



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L11: Entry 42 of 163

File: USPT

Mar 26, 2002

US-PAT-NO: 6361976

DOCUMENT-IDENTIFIER: US 6361976 B1

TITLE: Co-administration of interleukin-3 mutant polypeptides with CSF'S for multi-lineage hematopoietic cell production

DATE-ISSUED: March 26, 2002

US-CL-CURRENT: 435/69.52; 424/85.1, 435/69.5

APPL-NO: 08/ 446871 [PALM]

DATE FILED: June 6, 1995

## PARENT-CASE:

This is a continuation-in-part of Ser. No. 08/193,373, which was filed Feb. 04, 1994, now U.S. Pat. No. 6,153,183; which is a continuation-in-part of international application PCT/US93/11197 which was filed on Nov. 22, 1993, which is a continuation-in-part of U.S. Ser. No. 07/981,044, filed Nov. 24, 1992, which is now abandoned. The noted applications are incorporated herein by reference.



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L11: Entry 42 of 163

File: USPT

Mar 26, 2002

DOCUMENT-IDENTIFIER: US 6361976 B1

TITLE: Co-administration of interleukin-3 mutant polypeptides with CSF'S for multi-lineage hematopoietic cell production

## Detailed Description Text (162):

References Adams, S. P., Kavka, K. S., Wykes, E. J., Holder, S. B. and Galluppi, G. R. Hindered Dialkylamino Nucleoside Phosphate reagents in the synthesis of two DNA 51-mers. *J. Am. Chem. Soc.*, 105, 661-663 (1983). Atkinson, T. and Smith, M., in Gait, M. J., *Oligonucleotide Synthesis* (1984) (IRL Press, Oxford England). Bachmann, B., Pedigrees of some mutant strains of *Escherichia coli* K-12, *Bacteriological Reviews*, 36:525-557 (1972). Bayne, M. L., Expression of a synthetic gene encoding human insulin-like growth factor I in cultured mouse fibroblasts. *Proc. Natl. Acad. Sci. USA* 84, 2638-2642 (1987). Bazan, J. F., Haemopoietic receptors and helical cytokines. *Proc. Natl. Acad. Sci. U.S.A.* 87(18):6934-8 (1990). Ben-Bassat, A., K. Bauer, S-Y. Chang, K. Myambo, A. Boosman and S. Ching. Processing of the initiating methionine from proteins: properties of the *Escherichia coli* methionine aminopeptidase and its gene structure. *J. Bacteriol.*, 169: 751-757 (1987). Biesma, B. et al., Effects of interleukin-3 after chemotherapy for advanced ovarian cancer. *Blood*, 80:1141-1148 (1992). Birnboim, H. C. and J. Doly. A rapid alkaline extraction method for screening recombinant plasmid DNA. *Nucleic Acids Research*, 7(6): 1513-1523 (1979). Bradford, M. M., A rapid and sensitive method for the quantitation of microgram quantities of protein utilizing the principle of protein-dye binding, *Analytical Biochemistry*, 72: 248-254 (1976). Bradley, T R and Metcalf, D. The growth of mouse bone marrow cells in vitro. *Aust. Exp. Biol. Med. Sci.* 44:287-300, (1966). Briddell, R A, Hoffman, R, Cytokine regulation of the human burst-forming unit megakaryocyte, *Blood* 76:516, (1990). Broxmeyer, H. E. et al, Growth characteristics and expansion of human umbilical cord blood and estimation of its potential for transplantation in adults, *Proc. Natl. Acad. Sci. USA*, vol.89, 4109-4113, 1992. Bruno, E, Miller, M E, Hoffman, R, Interacting cytokines regulate in vitro human megakaryocytopoiesis, *Blood* 76:671, (1989). Bruno, E, Cooper, R J, Briddell, R A, Hoffman, R, Further examination of the effects of recombinant cytokines on the proliferation of human megakaryocyte, progenitor cells, *Blood* 77:2339, (1991). Clark-Lewis, I., L. E. Hood and S. B. H. Kent. Role of disulfide bridges in determining the biological activity of interleukin 3, *Proc. Natl. Acad. Sci.*, 85: 7897-7901 (1988). Clement, J. M. and Hofnung, M. Gene sequence of the receptor, an outer membrane protein of *E. coli* K12. *Cell*, 27: 507-514 (1981). Covarrubias, L., L. Cervantes, A. Covarrubias, X. Soberon, I. Vichido, A. Blanco, Y. M. Kupersztoch-Portnoy and F. Bolivar. Construction and characterization of new cloning vehicles. V. Mobilization and coding properties of pBR322 and several deletion derivatives including pBR327 and pBR328. *Gene* 13:25-35 (1981). D'Andrea, A. D., Lodish, H. G., Wong, G. G.: Expression cloning of the murine erythropoietin receptor. *Cell* 57:277, 1989 Deng, W. P. & Nickoloff, J. A. Site-directed mutagenesis of virtually any plasmid by eliminating a unique site *Anal. Biochem.* 200:81 (1992). Dente, L., G. Cesareni and R. Cortese, pEMBL: a new family of single stranded plasmids, *Nucleic Acids Research*, 11: 1645-1655 (1983). Donahue, R E, Seehra, J, Metzger, M, Lefebvre, D, Rock, B, Corbone, S, Nathan, D G, Garnick, M, Seghal, P K, Laston, D, La Valle, E, McCoy, J, Schendel, P F, Norton, C, Turner, K, Yang, Y C, and Clark, S C, Human IL-3 and GM-CSF act synergistically in stimulating hematopoiesis in primates. *Science*, 241:1820, (1988). de Sauvage, F. J., Haas, P. E., Spencer, S. D., Malloy, B. E., Gurney, A. L., Spencer, S. A., Darbonne, W. C., Henzel, W. J., Wong, S. C., Kuang, W., Oles, K. J., Hultgren, B., Solberg, L. A., Goeddel, D. V., and Eaton, D. L., Stimulation of megakaryocytopoiesis and thrombopoiesis by the c-Mpl ligand. *Nature* 369:533-538 (1994). Dunn, J. J. and

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CYTOKINEFREE.DWPI,EPAB,JPAB,USPT.	1
CYTOKINEINDUCED.DWPI,EPAB,JPAB,USPT.	1
CYTOKINEINDUCIBLE.DWPI,EPAB,JPAB,USPT.	1
CYTOKINEINDUCING.DWPI,EPAB,JPAB,USPT.	1
CYTOKINEIS.DWPI,EPAB,JPAB,USPT.	2
(L9 SAME (CYTOKINES\$ OR LYMPHOKINES\$)).USPT,JPAB,EPAB,DWPI.	163

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# WEST



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L2: Entry 114 of 131

File: USPT

Aug 6, 2002

US-PAT-NO: 6429199

DOCUMENT-IDENTIFIER: US 6429199 B1

TITLE: Immunostimulatory nucleic acid molecules for activating dendritic cells

DATE-ISSUED: August 6, 2002

US-CL-CURRENT: 514/44

APPL-NO: 09/ 191170 [PALM]

DATE FILED: November 13, 1998

PARENT-CASE:

RELATED APPLICATIONS This application is a continuation-in-part of U.S. Ser. No. 08/960,774, filed Oct. 30, 1997 now U.S. Pat. No. 6,239,116, which is a continuation-in-part of U.S. Ser. No. 08/738,652, filed Oct. 30, 1996 and now U.S. Pat. No. 6,207,646, and which application is a continuation-in-part of U.S. Ser. No. 08/386,063, filed Feb. 7, 1995 and now U.S. Pat. No. 6,194,388, and which application is a continuation-in-part of U.S. Ser. No. 08/276,358, filed Jul. 15, 1994 and which is abandoned.





Generate Collection

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L2: Entry 126 of 131

File: USPT

Dec 26, 2000

DOCUMENT-IDENTIFIER: US 6165785 A

TITLE: Bone marrow cultures for developing suppressor and stimulator cells for research and therapeutic applications

Brief Summary Text (60):

Supplemental Factors: Specific supplementation with colony stimulating factors is necessary. The current technique utilizes species specific granulocyte macrophage-colony stimulating factor (GM-CSF). Where species specific factor is unavailable (i.e., the rat) murine GM-CSF is used and a concentration of 100 units/mL is added at the start of the culture. Additional agents for the stimulation and maturation of cells are added. The current model employs lipopolysaccharide (LPS or bacterial endotoxin) obtained from E coli and added at 1 .mu.g/mL at the start of the culture. Additional growth/factors that may be used in addition or in place of GM-CSF include macrophage colony stimulating factor ("M-CSF"), granulocyte-colony stimulating factor ("G-CSF") and the FLT3 ligand. Additional stimulating factors that may be added or used in place of LPS include interleukin-6, interleukin-4, tumor necrosis factor alpha ("TNF.alpha."), and transforming growth factor beta ("TGF.beta. "). Again, all factors used are species specific unless unavailable, in which case either murine or human factors can be employed.

Brief Summary Text (128):

Supplemental Factors: Specific supplementation with colony stimulating factors is necessary. The current technique utilizes species specific granulocyte macrophage-colony stimulating factor (GM-CSF). Where species specific factor is unavailable (i.e. the rat) murine GM-CSF is used and a concentration of 100 units/mL is added at the start of the culture. Additional agents for the stimulation and maturation of cells are added. The current model employs lipopolysaccharide (LPS or bacterial endotoxin) obtained from E coli and added at 1 .mu.g/mL at the start of the culture. Additional growth/factors that may be used in addition or in place of GM-CSF include macrophage colony stimulating factor ("M-CSF"), granulocyte-colony stimulating factor ("G-CSF") and the FLT3 ligand. Additional stimulating factors that may be added or used in place of LPS include interleukin-6, interleukin-4, tumor necrosis factor alpha ("TNF.alpha."), and transforming growth factor beta ("TGF.beta."). Again, all factors used are species specific unless unavailable, in which case either murine or human factors can be employed.

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CYTOKINEDIRECTED.DWPI,EPAB,JPAB,USPT.	1
CYTOKINEENDOCRINE.DWPI,EPAB,JPAB,USPT.	1
CYTOKINEFREE.DWPI,EPAB,JPAB,USPT.	1
CYTOKINEINDUCED.DWPI,EPAB,JPAB,USPT.	1
CYTOKINEINDUCIBLE.DWPI,EPAB,JPAB,USPT.	1
CYTOKINEINDUCING.DWPI,EPAB,JPAB,USPT.	1
CYTOKINEIS.DWPI,EPAB,JPAB,USPT.	2
(L9 SAME (CYTOKINES\$ OR LYMPHOKINES\$)).USPT,JPAB,EPAB,DWPI.	163

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L11 L9 same (cytokine\$ or lymphokine\$) 163 L11

*DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ*

L10 L9 same (cytokine\$ or lymphokine\$) 327 L10

L9 ('gm-csf') same (cancer\$ or tumor\$ or tumour\$)same (combine\$ or combination) 622 L9

*DB=JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ*

L8 L7 and ('gm-csf') 6 L8

L7 ('flt3-ligand' or flt3) same (cancer\$ or tumor\$ or tumour\$) 20 L7

*DB=USPT,PGPB; PLUR=YES; OP=ADJ*

L6 L5.clm. 27 L6

L5 L4 same (antigen\$ or vaccin\$) 791 L5

L4 ('gm-csf') same (cancer\$ or tumor\$ or tumour\$) 2603 L4

L3 L2.clm. 6 L3

L2 ('flt3-ligand' or flt3) same (cancer\$ or tumor\$ or tumour\$) 131 L2

L1 ('flt3-ligand' or flt3) and (cancer\$ or tumor\$ or tumour\$) 294 L1

END OF SEARCH HISTORY



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L11: Entry 92 of 163

File: USPT

Jan 25, 2000

DOCUMENT-IDENTIFIER: US 6017544 A

TITLE: Composition comprising immunogenic stress protein-peptide complexes against cancer and a cytokine

Brief Summary Text (25):

In another aspect of the invention, the stress protein-peptide complexes may be administered to the mammal in combination with a therapeutically active amount of a cytokine. As used herein, the term "cytokine" is meant to mean any secreted polypeptide that influences the function of other cells mediating an immune response. Accordingly, it is contemplated that the complex can be coadministered with a cytokine to enhance the immune response directed against the tumor. Preferred cytokines include, but are not limited to, interleukin-1.alpha. (IL-1.alpha.), interleukin-1.beta. (IL-1.beta.), interleukin-2 (IL-2), interleukin-3 (IL-3), interleukin-4 (IL-4), interleukin-5 (IL-5), interleukin-6 (IL-6), interleukin-7 (IL-7), interleukin-8 (IL-8), interleukin-9 (IL-9), interleukin-10 (IL-10), interleukin-11 (IL-11), interleukin-12 (IL-12), interferon .alpha. (IFN.alpha.), interferon .beta. (IFN.beta.), interferon .gamma. (IFN.gamma.), tumor necrosis factor .alpha. (TNF.alpha.), tumor necrosis factor .beta. (TNF.beta.), granulocyte colony stimulating factor (G-CSF), granulocyte/macrophage colony stimulating factor (GM-CSF), and transforming growth factor .beta. (TGF-.beta.).



Generate Collection

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L11: Entry 96 of 163

File: USPT

Dec 14, 1999

DOCUMENT-IDENTIFIER: US 6001803 A

TITLE: Composition of c-kit ligand, GM-CSF, and TNF-.alpha. and method of use

Detailed Description Text (261):

Dendritic cells are the most potent antigen-presenting cells for induction of primary antigen specific T cell responses in vivo and in vitro. Dendritic cells generated in vitro could be used after antigen pulse for an immunization boost in the context of vaccine therapy against HIV and tumors. We have developed an in vitro systems for generation of human dendritic cells from CD34.sup.+ populations of human marrow, peripheral blood and cord blood. Here, the presence of GM-CSF and TNF alpha are necessary for dendritic differentiation in suspension culture and clonogenic assay and c-kit ligand synergistically increases the numbers of dendritic cells/dendritic cell colonies. Table 3a, shows that with adult human marrow CD34.sup.+ cells in clonogenic assay KL is absolutely required for the development of dendritic, cell colonies in synergy with GM-CSF and TNF.alpha.. In blood CD34.sup.+ populations GM-CSF plus TNF.alpha. alone induced dendritic cell colony formation but the frequency of colony formation was increased by addition of KL (Table 3b) Comparison of multiple cytokines shows that dendritic colony cell generation was maximally stimulated by a combination of KL, GM-CSF and TNF.alpha. (Table 3c). In suspension culture systems, IL-1+KL+IL-3 expanded pre-dendritic cells over one hundred fold in 14 days and with addition of GM-CSF+KL+TNF these cells differentiated to dendritic cells capable of antigen presentation in the context of an allogeneic mixed leukocyte reaction and CD3 T lymphocyte mitogenesis. KL provided a unique amplifying stimulus for the generation of pre-dendritic and dendritic cells for primitive bone marrow progenitors/stem cells.



Generate Collection

Print

L11: Entry 97 of 163

File: USPT

Dec 7, 1999

DOCUMENT-IDENTIFIER: US 5997865 A

TITLE: Agonist antibodies against the flk2/flt3 receptor and uses thereof

Brief Summary Text (9):

Various lineage-specific factors have been demonstrated to control cell growth, differentiation and the functioning of hematopoietic cells. These factors or cytokines include the interleukins (e.g., IL-3), granulocyte-macrophage colony-stimulating factor (GM-CSF), macrophage colony-stimulating factor (M-CSF), granulocyte colony-stimulating factor (M-CSF), erythropoietin (Epo), lymphotoxin, steel factor (SLF), tumor necrosis factor (TNF) and gamma-interferon. These growth factors have a broad spectrum of activity, from generalized to lineage-specific roles in hematopoiesis, or a combination of both. For example, IL-3 appears to act on multipotent stem cells as well as progenitors restricted to the granulocyte/macrophage, eosinophil, megakaryocyte, erythroid or mast cell lineages. On the other hand, Epo generally acts on fairly mature erythroid progenitor cells.



Generate Collection

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L11: Entry 107 of 163

File: USPT

May 18, 1999

DOCUMENT-IDENTIFIER: US 5904920 A

TITLE: Regulation of systemic immune responses utilizing cytokines and antigens

Brief Summary Text (9):

Another approach focuses on the interaction of cytokines and the immune system. Cytokines and combinations of cytokines have been shown to play an important role in the stimulation of the immune system. For example, U.S. Pat. No. 5,098,702, describes using combinations of TNF, IL-2 and IFN-.beta. in synergistically effective amounts to combat existing tumors. U.S. Pat. No. 5,078,996 describes the activation of macrophage nonspecific tumoricidal activity by injecting recombinant GM-CSF to treat patients with tumors.

Detailed Description Text (26):

In a preferred embodiment, tumor cells are modified to express the cytokines IL-2 and GM-CSF. This combination is particularly desirable since it results in the long term systemic immune protection against subsequent challenge with wild type tumor cells.



Generate Collection

Print

L11: Entry 129 of 163

File: USPT

Jun 2, 1998

DOCUMENT-IDENTIFIER: US 5759535 A

TITLE: Immunotherapeutic strategies for the treatment of cancer

Detailed Description Text (70):

Exemplary modifications include the introduction of a vector containing an expressible cDNA encoding a cytoline such as IL-2, INF-.sub..gamma., granulocyte-colony stimulating factor (Colombo, M.P. et al., J. Exp. Med. 173: 889-847 [1991]); interferon .alpha. (IFN.alpha.) (Ferrantini, M., et al. Cancer Res. 53: 1107-1112 [1993]); interleukin-6 (IL-6) (Porgador, et al., Cancer Res. 52: 3679-3686 [1992]); tumor necrosis factor (TNF) (Blankenstein, et al. J. Exp. Med. 173: 1047-1052 [1991]); and interleukin-4 (Golvrobeck, P. T., et al. Science 254: 713-716 [1991]) GM-CSF (Dranoff, G., et al., Proc. Nat. Acad. Sci. USA 90:3539-3543 [1993]) or other cytokines capable of augmenting an anti-tumor response to a tumor antigen. Such a vector is exemplified by pZipNeoSVIL-2 in Example 2 described above. However, allogeneic cells lines expressing endogenous cytokines may also be used. Once a modified allogeneic cell line is established and is shown to produce the cytokine or cytokines of interest (the combination of IL-2 and INF-.sub..gamma. is preferred), then this cell line is used as a target for further modification by introducing isolated purified genomic DNA taken from a patient's own tumor. Tumor samples are obtained during surgery, by needle aspiration, or by other well-known methods. Genomic DNA is then isolated and purified from the tumor sample directly using methods well known in the art including those set out in Sambrook, et al., Molecular Cloning: A Laboratory Manual, Cold Spring Harbor Laboratory N.Y. (1992). Tumor samples may also be grown in culture using methods well known in the art in order to increase the amount of DNA available for transfection or to select for a particular sub-population of tumor cells from which to isolate DNA.





Generate Collection

Print

L11: Entry 128 of 163

File: USPT

Jun 9, 1998

DOCUMENT-IDENTIFIER: US 5762921 A

TITLE: Composition and methods for the treatment of tumors

Detailed Description Text (25):

"Cytokine" is a generic term for proteins released by one cell population which act on another cell as intercellular mediators. Included among the cytokines are native tumor necrosis factor-.alpha. and -.beta. (TNF-.alpha. and -.beta.), interferons (IFNs) such as, IFN-.alpha., IFN-.beta. and IFN-.gamma., interleukins (ILs) such as, IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, etc., growth hormones (GHs), including human growth hormone (hGH), N-methionyl hGH; and bovine GH; insulin-like growth factors, parathyroid hormone, thyroxine, insulin, proinsulin, relaxin, prorelaxin, glycoprotein hormones such as, follicle stimulating hormone (FSH), thyroid stimulating hormone (TSH), and luteinizing hormone (LH), hemopoietic growth factor, HGF, fibroblast growth factor, prolactin, placental lactogen, mullerian inhibiting substance, mouse gonadotropin-associated peptide, inhibin, activin, vascular endothelial growth factor, integrin, thrombopoietin, nerve growth factors, such as NGF-.beta., PDGF, transforming growth factors (TGFs) such as, TGF-.alpha. and TGF-.beta., insulin-like growth factor-1 and -2 (IGF-1 and IGF-2), erythropoietin, osteoinductive factors, colony stimulatina factors (CSFS) such as, M-CSF, GM-CSF, and G-CSF, and other polypeptide factors of any human and non-human animal species, and functional derivatives of such native proteins. The cytokines useful in the compositions and methods of the present invention are characterized by exhibiting one or more of the following properties stimulation of procoagulant activity, stimulation of natural killer (NK) and lymphokine-activated killer cell-mediated cytotoxicity, macrophage activation, stimulation of Fc receptor expression on mononuclear cells and antibody-dependent cellular cytotoxicity (ADCC), and enhancement of HLA class II antigen expression. Preferably, the cytokines to be used in accordance with the present invention should have the ability to stimulate procoagulant activity. Particularly referred cytokines are native TNF-.alpha. and -.beta., interleukin-1 and -2, interferon-.gamma., alone or in combination, and functional derivatives of these native proteins.

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## Search Results -

Term	Documents
FLT3.USPT.	126
FLT3S	0
DENDRITIC.USPT.	5190
DENDRITICS.USPT.	12
(FLT3 SAME DENDRITIC).USPT.	27
((FLT3) SAME (DENDRITIC)).USPT.	27

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<i>DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ</i>			
L1	(flt3) same (dendritic)	136	L1

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<u>L3</u>	(flt3) same (dendritic)	7	<u>L3</u>
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DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ			
<u>L1</u>	(flt3) same (dendritic)	136	<u>L1</u>

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FLT3S	0
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DENDRITICS.PGPB.	2
(FLT3 SAME DENDRITIC).PGPB.	101
((FLT3) SAME (DENDRITIC)).PGPB.	101

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<i>DB=DWPI; PLUR=YES; OP=ADJ</i>			
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<u>L1</u>	(flt3) same (dendritic)	136	<u>L1</u>

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FLT3S	0
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DENDRITICS.PGPB.	2
(FLT3 SAME DENDRITIC).PGPB.	101
((FLT3) SAME (DENDRITIC)).PGPB.	101

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<u>L5</u>	(flt3) same (dendritic)	101	<u>L5</u>
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<u>L3</u>	(flt3) same (dendritic)	7	<u>L3</u>
<i>DB=USPT; PLUR=YES; OP=ADJ</i>			
<u>L2</u>	(flt3) same (dendritic)	27	<u>L2</u>
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<u>L1</u>	(flt3) same (dendritic)	136	<u>L1</u>

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Term	Documents
STEM.USPT.	115224
STEMS.USPT.	36315
PROGENITOR.USPT.	3778
PROGENITORS.USPT.	1844
(2 SAME (PROGENITOR OR STEM)).USPT.	122
(L2 SAME (STEM OR PROGENITOR)).USPT.	122

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*DB=USPT; PLUR=YES; OP=ADJ*

<u>L3</u>	L2 same (stem or progenitor)	122	<u>L3</u>
<u>L2</u>	('gm-csf) same (cancer\$)	568	<u>L2</u>
<u>L1</u>	5997865.pn.	1	<u>L1</u>

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L3: Entry 119 of 122

File: USPT

Apr 6, 1993

DOCUMENT-IDENTIFIER: US 5199942 A

TITLE: Method for improving autologous transplantation

Brief Summary Text (12):

Mason et al., Proc. Amer. Assoc. Cancer Res. 32:193 (1991), reported that in vitro interleukin-3 (IL-3) alone or in combination with interleukin-6 (IL-6) increased the number of colony forming progenitors from human blood progenitor cells two fold in vitro. Mason et al. also reported that GM-CSF did not expand the colony forming progenitor population in vitro. Accordingly, autologous hematopoietic cell transplantation has proven to be a valuable technique to speed recovery from cytoreductive therapies. Improvements in autologous hematopoietic cell transplantation can further speed recovery from cytoreductive therapies and even allow the use of higher and more effective doses in cytoreductive therapies. This invention provides an improvement in autologous hematopoietic cell transplantation.



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L3: Entry 117 of 122

File: USPT

Jan 11, 1994

DOCUMENT-IDENTIFIER: US 5278145 A

TITLE: Method for protecting bone marrow against chemotherapeutic drugs using transforming growth factor beta 1

Detailed Description Text (5):

Myelotoxicity of bone marrow leucocyte is the major dose limiting toxicity associated chemotherapeutic drugs in cancer therapy. To maintain adequate host defense against potentially lethal infections of microorganisms, man must produce 120 million mature granulocytes every minute. Most chemotherapeutic drugs used to treat cancer destroy the body's ability to make granulocytes such that even minimally effective therapeutic doses of these drugs threaten the life of the patient. Previous attempts to alleviate this problem have centered on the use of hematopoietic growth factors ((IL-3, GM-CSF (granulocyte-macrophage colony stimulating factor) or G/CSF (granulocyte stimulating factor)) to accelerate recovery from the myelotoxicity. These agents are most effectively given after the drug and stimulate hyperactivity of the pool of stem cells left after the drug treatment. The approach of the present invention is an improvement since it is given before the drug and reduces the number of stem cells killed by the drug and reduces the amount of myelotoxicity seen. Since the number of stem cells in an individual are limited, this clinical application may produce more long-term benefits than previous therapies.



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L3: Entry 90 of 122

File: USPT

Jul 22, 1997

DOCUMENT-IDENTIFIER: US 5649904 A

TITLE: Method of treating cancer with a fully myeloablative regimen of chemotherapy, radiation or both

Brief Summary Text (5):

It is known that GM-CSF is a factor which is required for the survival, proliferation and differentiation of myeloid progenitor cells which are committed to form mature granulocytes and macrophages (CFU-GMs). G-CSF similarly acts on myeloid progenitor cells committed to form mature granulocytes. Each is useful in the treatment of myelo-suppression caused by chemotherapeutic or irradiation treatment of cancer. Under such circumstances the HPSF is administered to a patient, treated with chemo- or irradiation therapy, after the re-infusion of previously removed bone marrow (autologous bone marrow) in order to stimulate the proliferation and differentiation of the myeloid progenitor cells found in the bone marrow. GM-CSF may also be administered for 3-5 days before the removal of bone marrow for later re-infusion.



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L3: Entry 79 of 122

File: USPT

Sep 15, 1998

DOCUMENT-IDENTIFIER: US 5806529 A  
TITLE: Bone marrow transplantation

Brief Summary Text (7):

More recently, advances made in the area of autologous BMT have shown that, in cancer patients receiving such transplants, treatment with granulocyte colony-stimulating factor (G-CSF) or other cytokines, such as granulocyte macrophage colony-stimulating factor (GM-CSF) or interleukin-3 (IL-3), leads not only to elevated levels of neutrophils in the peripheral blood, but also to mobilization of pluripotential stem cells from the marrow to the blood. Thus, following induction with G-CSF, it became possible to collect by leukapheresis large numbers of stem cells (Caspar et al., 1993).

☐ Generate Collection 

L3: Entry 63 of 122

File: USPT

Nov 30, 1999

DOCUMENT-IDENTIFIER: US 5994126 A

TITLE: Method for in vitro proliferation of dendritic cell precursors and their use to produce immunogens

Detailed Description Text (225):

J. DC progenitors in the blood of cancer patients during hematopoietic recovery from chemotherapy: We next studied blood mononuclear cells from cancer patients in full remission [leukemias/lymphomas and solid tumors] following high-dose chemotherapy and either G-CSF [17 patients] or GM-CSF [3 patients] treatment. It is known that in the hematopoietic recovery of such patients, progenitors are mobilized into the blood in substantial numbers [0.5-6.0% CD34+ cells] (Eaves, C. J. (1993) Blood, 82:1957; Pettengell, et al., (1993) Blood, 82:3770). Instead of enriching for CD34+ cells, we simply removed CD3+ and DR+ cells by panning, and then plated 1-2.times.10.sup.6 cells in 1 ml medium with 5-10% FCS or 5% cord serum plus 400-800 U/ml GM-CSF. The nonadherent cells were transferred at d2 (or in some experiments at d1) and cultured for 16 d feeding every other day.

Detailed Description Text (243):

GM-CSF is essential to grow DCs from all sources used. Additional cytokines required for optimal DC growth from the various sources are, however, strikingly different (TNF .alpha. versus IL-4). We suspect that this is due to the fact that the main DC progenitors involved differ. In cord blood the DC aggregates likely derive from CD34+ cells as preliminary experiments (N. Romani, unpublished) have shown that depletion of CD34+ cells from the initial inoculum virtually abolishes the formation of DC aggregates. This also readily explains the need to add TNF a which is known to induce responsiveness to GM-CSF of CD34+ cells (Santiago-Schwartz, et al., Blood, 82:3019; Caux, et al., (1993) J. Exp. Med., 177:1815). Ongoing experiments indicate that IL-4 does not seem to enhance DC development from precursors that arise in cord blood mononuclear cells supplemented with GM-CSF and TNF-.alpha. [D. Brang, unpublished]. We do not yet know, however, whether IL-4 is produced endogenously in such cultures. Endogenous IL-4 might suppress--similar to exogenously added IL-4 in adult blood cultures--the monocyte differentiation potential of more mature DC progenitors that derive from CD34+ multilineage progenitors in response to GM-CSF and TNF .alpha.. DC developmental pathways in cultures of blood derived from cancer patients during hematopoietic recovery are presumably similar to cord blood. Besides CD34+ cells it is, however, likely that more committed precursors are also involved as the percentage of CD34+ cells in the CD3/HLA-DR depleted mononuclear cell fraction did not strictly correlate with DC yields. In normal adult blood in response to GM-CSF and TNF .alpha. only after a prolonged culture period (2 weeks) some DC aggregates emerged likely from early, rare DC progenitors similar to those in cord blood or blood of cancer patients during hematopoietic recovery. The main DC progenitor(s) in normal adult blood, however, appear(s) to be more frequent as only 2 days of culture are needed before many DC aggregates appear [FIG. 21]. Prior work in mouse (Inaba, et al., (1993) Proc. Natl. Acad. Sci. USA, 90:3038) and man (Reid., et al., (1992) J. Immunol, 149:2681) has described that the multilineage colonies that are induced by GM-CSF in semisolid agar cultures contain all 3 types of myeloid progeny, i.e. granulocytes, macrophages, and dendritic cells. The principal DC progenitor in normal human peripheral blood seems more differentiated since granulocytes do not develop. This committed progenitor is GM-CSF responsive, and likely bipotential, developing into macrophages rather than DCs unless its monocyte differentiation potential is suppressed by IL-4.



Generate Collection

Print

L3: Entry 25 of 122

File: USPT

Aug 14, 2001

DOCUMENT-IDENTIFIER: US 6274378 B1

TITLE: Methods and compositions for obtaining mature dendritic cells

Drawing Description Text (13):

FIG. 12: Dendritic cell progenitors reside in a CD34-negative population. PBMC of a cancer patient who had been treated with G-CSF were passed through an anti-CD34 immunoaffinity column. The original unseparated population [solid lines] and the CD34-depleted population [dashed lines] were cultured in RPMI.backslash.FCS with GM-CSF and IL-4 until d7 and further on from d7 to d10 in the presence [closed symbols] or absence [open symbols] of CM. Both populations gave rise to dendritic cells that matured upon exposure to CM.

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L3: Entry 21 of 122

File: USPT

Dec 4, 2001

DOCUMENT-IDENTIFIER: US 6326198 B1

TITLE: Methods and compositions for the ex vivo replication of stem cells, for the optimization of hematopoietic progenitor cell cultures, and for increasing the metabolism, GM-CSF secretion and/or IL-6 secretion of human stromal cells

Brief Summary Text (18):

The hematopoietic cells required for progenitor cell expansion may come from either bone marrow withdrawal or peripheral blood collection. Bone marrow harvests would result in collection of approximately  $4 \times 10^5$  CFU-GM progenitor cells. Phoresis of 5 liters of peripheral blood would collect approximately  $10^5$  CFU-GM although this number could be increased to  $10^6$  CFU-GM by prior treatment of the donor with GM-CSF. Rapid recovery of a patient would require transfusion of approximately  $1 \times 10^8$  to  $5 \times 10^8$  CFU-GM which is 100 to 1,000 times more than obtained by routine bone marrow donation or by peripheral blood donation. Therefore, expansion of bone marrow or peripheral blood to increase the number of CFU-GM 2 to 3 orders of magnitude would significantly affect chemotherapy administration and cancer treatment.





Generate Collection

Print

L3: Entry 4 of 122

File: USPT

Nov 5, 2002

DOCUMENT-IDENTIFIER: US 6475483 B1

TITLE: Method for in vitro proliferation of dendritic cell precursors and their use to produce immunogens for treating autoimmune diseases

Detailed Description Text (212):

J. DC progenitors in the blood of cancer patients during hematopoietic recovery from chemotherapy: We next studied blood mononuclear cells from cancer patients in full remission [leukemias/lymphomas and solid tumors] following high-dose chemotherapy and either G-CSF [17 patients] or GM-CSF [3 patients] treatment. It is known that in the hematopoietic recovery of such patients, progenitors are mobilized into the blood in substantial numbers [0.5-6.0% CD34+ cells] (Eaves, C. J. (1993) Blood, 82:1957; Pettengell, et al., (1993) Blood, 82:3770). Instead of enriching for CD34+ cells, we simply removed CD3+ and DR+ cells by panning, and then plated 1-2.times.10.sup.6 cells in 1 ml medium with 5-10% FCS or 5% cord serum plus 400-800 U/ml GM-CSF. The nonadherent cells were transferred at d2 (or in some experiments at d1) and cultured for 16 d feeding every other day.

Detailed Description Text (231):

GM-CSF is essential to grow DCs from all sources used. Additional cytokines required for optimal DC growth from the various sources are, however, strikingly different (TNF .alpha. versus IL-4). We suspect that this is due to the fact that the main DC progenitors involved differ. In cord blood the DC aggregates likely derive from CD34+ cells as preliminary experiments (N. Romani, unpublished) have shown that depletion of CD34+ cells from the initial inoculum virtually abolishes the formation of DC aggregates. This also readily explains the need to add TNF .alpha. which is known to induce responsiveness to GM-CSF of CD34+ cells (Santiago-Schwartz, et al., Blood, 82:3019; Caux, et al., (1993) J. Exp. Med., 177:1815). Ongoing experiments indicate that IL-4 does not seem to enhance DC development from precursors that arise in cord blood mononuclear cells supplemented with GM-CSF and TNF-.alpha. [D. Brang, unpublished]. We do not yet know, however, whether IL-4 is produced endogenously in such cultures. Endogenous IL-4 might suppress--similar to exogenously added IL-4 in adult blood cultures--the monocyte differentiation potential of more mature DC progenitors that derive from CD34+ multilineage progenitors in response to GM-CSF and TNF .alpha.. DC developmental pathways in cultures of blood derived from cancer patients during hematopoietic recovery are presumably similar to cord blood. Besides CD34+ cells it is, however, likely that more committed precursors are also involved as the percentage of CD34+ cells in the CD3/HLA-DR depleted mononuclear cell fraction did not strictly correlate with DC yields. In normal adult blood in response to GM-CSF and TNF .alpha. only after a prolonged culture period (2 weeks) some DC aggregates emerged likely from early, rare DC progenitors similar to those in cord blood or blood of cancer patients during hematopoietic recovery. The main DC progenitor(s) in normal adult blood, however, appear(s) to be more frequent as only 2 days of culture are needed before many DC aggregates appear [FIG. 21]. Prior work in mouse (Inaba, et al., (1993) Proc. Natl. Acad. Sci. USA, 90:3038) and man (Reid., et al., (1992) J. Immunol, 149:2681) has described that the multilineage colonies that are induced by GM-CSF in semisolid agar cultures contain all 3 types of myeloid progeny, i.e. granulocytes, macrophages, and dendritic cells. The principal DC progenitor in normal human peripheral blood seems more differentiated since granulocytes do not develop. This committed progenitor is GM-CSF responsive, and likely bipotential, developing into macrophages rather than DCs unless its monocyte differentiation potential is suppressed by IL-4.



Generate Collection

Print

L3: Entry 36 of 122

File: USPT

Feb 20, 2001

DOCUMENT-IDENTIFIER: US 6190655 B1

TITLE: Methods of using Flt-3 ligand for exogenous gene transfer

Brief Summary Text (9):

Cytopenias increase morbidity, mortality, and lead to under-dosing in cancer treatment. Many clinical investigators have manipulated cytoreductive therapy dosing regimens and schedules to increase dosing for cancer therapy, while limiting damage to bone marrow. One approach involves bone marrow or peripheral blood cell transplants in which bone marrow or circulating hematopoietic progenitor or stem cells are removed before cytoreductive therapy and then reinfused following therapy to restore hematopoietic function. U.S. Pat. No. 5,199,942, incorporated herein by reference, describes a method for using GM-CSF, IL-3, SF, GM-CSF/IL-3 fusion proteins, erythropoietin ("EPO") and combinations thereof in autologous transplantation regimens.

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? begin 5,73,155,399  
20jan03 18:22:59 User208760 Session D2251.2  
\$0.00 0.070 DialUnits File410  
\$0.00 Estimated cost File410  
\$0.01 TELNET  
\$0.01 Estimated cost this search  
\$0.27 Estimated total session cost 0.145 DialUnits

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removal, customized scheduling. See HELP ALERT.  
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removal, customized scheduling. See HELP ALERT.  
File 155:MEDLINE(R) 1966-2003/Jan W1  
\*File 155: Updating of completed records has resumed. See Help News155.  
Alert feature enhanced with customized scheduling. See HELP ALERT.  
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Ref	Items	Index-term
E1	11	AU=BRASEL KEN
E2	17	AU=BRASEL KENNETH
E3	0	*AU=BRASEL KENNETH \$
E4	3	AU=BRASEL KENNETH A
E5	2	AU=BRASEL M
E6	1	AU=BRASEL N
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E8	1	AU=BRASEL T L
E9	1	AU=BRASEL TREVOR
E10	1	AU=BRASEL TREVOR L
E11	1	AU=BRASEL, CHRIS
E12	2	AU=BRASEL, CHRISTOPHER

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Ref	Items	Index-term
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E2	17.	AU=BRASEL KENNETH
E3	0	*AU=BRASEL KENNETH ?
E4	3	AU=BRASEL KENNETH A
E5	2	AU=BRASEL M
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E7	3	AU=BRASEL T
E8	1	AU=BRASEL T L
E9	1	AU=BRASEL TREVOR
E10	1	AU=BRASEL TREVOR L
E11	1	AU=BRASEL, CHRIS
E12	2	AU=BRASEL, CHRISTOPHER

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11 AU=BRASEL KEN

17 AU=BRASEL KENNETH  
0 AU=BRASEL KENNETH ?  
3 AU=BRASEL KENNETH A  
S1 31 E1-E4  
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31 S1  
3578 FLT3?  
S2 23 S1 AND FLT3?  
? rd s2  
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S3 21 RD S2 (unique items)  
? t s3/3/all

3/3/1 (Item 1 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2003 BIOSIS. All rts. reserv.

14006420 BIOSIS NO.: 200300000449  
Comparative analysis of murine marrow-derived dendritic cells generated by  
**Flt3L** or GM-CSF/IL-4 and matured with immune stimulatory agents on  
the in vivo induction of antileukemia responses.  
AUTHOR: Weigel Brenda J(a); Nath Narender; Taylor Patricia A;  
Panoskaltsis-Mortari Angela; Chen Wei; Krieg Arthur M; **Brasel**  
**Kenneth**; Blazar Bruce R  
AUTHOR ADDRESS: (a)Department of Pediatrics, Division of Pediatric  
Hematology/Oncology and Blood and Marrow Transplant, University of  
Minnesota Cancer Center, 420 Delaware St SE, MMC 366, Minneapolis, MN,  
55455, USA\*\*USA E-Mail: weige007@tc.umn.edu  
JOURNAL: Blood 100 (12):p4169-4176 December 1 2002 2002  
MEDIUM: print  
ISSN: 0006-4971  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

3/3/2 (Item 2 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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13790194 BIOSIS NO.: 200200419015  
Large numbers of antigen-specific cytotoxic T lymphocytes are generated in  
vivo when mice are treated with **flt3** ligand to expand dendritic  
cells then immunized with peptides emulsified in incomplete Freund's  
adjuvant.  
AUTHOR: McKenna Hilary(a); Butz Eric(a); **Brasel Ken**(a); Day Fiona(a);  
Caron Dania(a); Maliszewski Charlie(a); Liebowitz David(a)  
AUTHOR ADDRESS: (a)Immunex Corporation, Seattle, WA\*\*USA  
JOURNAL: Proceedings of the American Association for Cancer Research Annual  
Meeting 43p972-973 March, 2002  
MEDIUM: print  
CONFERENCE/MEETING: 93rd Annual Meeting of the American Association for  
Cancer Research San Francisco, California, USA April 06-10, 2002  
ISSN: 0197-016X  
RECORD TYPE: Citation  
LANGUAGE: English

3/3/3 (Item 3 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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13147121 BIOSIS NO.: 200100354270  
Anti-tumor effect of dendritic cells generated ex vivo by **Flt3L** or

GM-CSF/IL4 with immune stimulatory agents (TNFalpha, LPS and CpG oligodeoxynucleotides).  
AUTHOR: Weigel Brenda J(a); Nath Narendra; Taylor Patricia A;  
Panoskaltis-Mortari Angela; Krieg Arthur M; **Brasel Kenneth**; Blazar  
Bruce R  
AUTHOR ADDRESS: (a)Immunex, Seattle, WA\*\*USA  
JOURNAL: Proceedings of the American Association for Cancer Research Annual  
Meeting 42p25 March, 2001  
MEDIUM: print  
CONFERENCE/MEETING: 92nd Annual Meeting of the American Association for  
Cancer Research New Orleans, LA, USA March 24-28, 2001  
ISSN: 0197-016X  
RECORD TYPE: Citation  
LANGUAGE: English  
SUMMARY LANGUAGE: English

3/3/4 (Item 4 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2003 BIOSIS. All rts. reserv.

13084327 BIOSIS NO.: 200100291476  
Effects of IL-6 on **FLT3** ligand-mediated murine DC development.  
AUTHOR: **Brasel Kenneth A**(a); Maliszewski Charles R  
AUTHOR ADDRESS: (a)Immunobiology, Immunex Corp, Seattle, WA\*\*USA  
JOURNAL: Blood 96 (11 Part 1):p33a November 16, 2000  
MEDIUM: print  
CONFERENCE/MEETING: 42nd Annual Meeting of the American Society of  
Hematology San Francisco, California, USA December 01-05, 2000  
SPONSOR: American Society of Hematology  
ISSN: 0006-4971  
RECORD TYPE: Abstract  
LANGUAGE: English  
SUMMARY LANGUAGE: English

3/3/5 (Item 5 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2003 BIOSIS. All rts. reserv.

12781067 BIOSIS NO.: 200000534690  
Generation of murine dendritic cells from **flt3**-ligand-supplemented  
bone marrow cultures.  
AUTHOR: **Brasel Kenneth**(a); De Smedt Thibaut; Smith Jeffery L;  
Maliszewski Charles R  
AUTHOR ADDRESS: (a)Immunobiology Department, Immunex Corporation, 51  
University St, Seattle, WA, 98101\*\*USA  
JOURNAL: Blood 96 (9):p3029-3039 November 1, 2000  
MEDIUM: print  
ISSN: 0006-4971  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English  
SUMMARY LANGUAGE: English

3/3/6 (Item 6 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2003 BIOSIS. All rts. reserv.

12589890 BIOSIS NO.: 200000343392  
Mice lacking **flt3** ligand have deficient hematopoiesis affecting  
hematopoietic progenitor cells, dendritic cells, and natural killer  
cells.

AUTHOR: McKenna Hilary J(a); Stocking Kim L; Miller Robert E; **Brasel Kenneth**; De Smedt Thibaut; Maraskovsky Eugene; Maliszewski Charles R; Lynch David H; Smith Jeffrey; Pulendran Bali; Roux Eileen R; Teepe Mark; Lyman Stewart D; Peschon Jacques J  
AUTHOR ADDRESS: (a) Immunobiology Department, Immunex Corporation, 51 University St, Seattle, WA, 98101\*\*USA  
JOURNAL: Blood 95 (11):p3489-3497 June 1, 2000  
MEDIUM: print  
ISSN: 0006-4971  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English  
SUMMARY LANGUAGE: English

3/3/7 (Item 7 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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11575625 BIOSIS NO.: 199800356321  
Structure-function analysis of **FLT3** ligand-**FLT3** receptor interactions using a rapid functional screen.  
AUTHOR: Graddis Thomas J; **Brasel Kenneth**; Friend Della; Srinivasan Subhashini; Wee Siowfong; Lyman Stewart D; March Carl J; McGrew Jeffrey T (a)  
AUTHOR ADDRESS: (a)Dep. Cell Sci., Immunex Corp., 51 University St., Seattle, WA 98101\*\*USA  
JOURNAL: Journal of Biological Chemistry 273 (28):p17626-17633 July 10, 1998  
ISSN: 0021-9258  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

3/3/8 (Item 8 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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11197130 BIOSIS NO.: 199799818275  
**Flt3** ligand synergizes with granulocyte-macrophage colony-stimulating factor or granulocyte colony-stimulating factor to mobilize hematopoietic progenitor cells into the peripheral blood of mice.  
AUTHOR: **Brasel Kenneth**(a); McKenna Hilary J; Charrier Keith; Morrissey Phillip J; Williams Douglas E; Lyman Stewart D  
AUTHOR ADDRESS: (a)Dep. Immunobiol., Immunex Corp., 51 University St., Seattle, WA 98101\*\*USA  
JOURNAL: Blood 90 (9):p3781-3788 1997  
ISSN: 0006-4971  
RECORD TYPE: Abstract  
LANGUAGE: English

3/3/9 (Item 9 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2003 BIOSIS. All rts. reserv.

10698320 BIOSIS NO.: 199799319465  
Dramatic increase in the numbers of functionally mature dendritic cells in **Flt3** ligand-treated mice: Multiple dendritic cell subpopulations identified.  
AUTHOR: Maraskovsky Eugene(a); **Brasel Ken**; Teepe Mark; Roux Eileen R; Lyman Stewart D; Shortman Ken; McKenna Hilary J  
AUTHOR ADDRESS: (a)Immunex Corporation, 51 University St., Seattle, WA

98101\*\*USA  
JOURNAL: Journal of Experimental Medicine 184 (5):p1953-1962 1996  
ISSN: 0022-1007  
RECORD TYPE: Abstract  
LANGUAGE: English

3/3/10 (Item 10 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2003 BIOSIS. All rts. reserv.

10574282 BIOSIS NO.: 199699195427  
Hematologic effects of **flt3** ligand in vivo in mice.  
AUTHOR: **Brasel Kenneth**; McKenna Hilary J; Morrissey Philip J;  
Charrier Keith; Morris Arvia E; Lee Chi Chang; Williams Douglas E; Lyman  
Stewart D  
AUTHOR ADDRESS: Dep. Molecular Genetics, Immunex Corp, 51 University St.,  
Seattle, WA 98101\*\*USA  
JOURNAL: Blood 88 (6):p2004-2012 1996  
ISSN: 0006-4971  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

3/3/11 (Item 11 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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10291251 BIOSIS NO.: 199698746169  
Effects of **flt3** ligand on acute myeloid and lymphocytic leukemic  
blast cells from children.  
AUTHOR: McKenna Hilary J(a); Smith Franklin O; **Brasel Kenneth**;  
Hirschstein Daniel; Bernstein Irwin D; Williams Douglas E; Lyman Stewart  
D  
AUTHOR ADDRESS: (a)Dep. Immunobiol., Immunex Corp., 51 University Street,  
Seattle, WA 98101\*\*USA  
JOURNAL: Experimental Hematology (Charlottesville) 24 (2):p378-385 1996  
ISSN: 0301-472X  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

3/3/12 (Item 12 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2003 BIOSIS. All rts. reserv.

10164986 BIOSIS NO.: 199698619904  
Structure function studies of human **FLT3** ligand.  
AUTHOR: Escobar Sabine; **Brasel Ken**; Anderberg Robert; Lyman Stewart D  
AUTHOR ADDRESS: Immunex Corp., Seattle, WA\*\*USA  
JOURNAL: Blood 86 (10 SUPPL. 1):p21A 1995  
CONFERENCE/MEETING: 37th Annual Meeting of the American Society of  
Hematology Seattle, Washington, USA December 1-5, 1995  
ISSN: 0006-4971  
RECORD TYPE: Citation  
LANGUAGE: English

3/3/13 (Item 13 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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10148652 BIOSIS NO.: 199698603570

Plasma/serum levels of **flt3** ligand are low in normal individuals and highly elevated in patients with Fanconi anemia and acquired aplastic anemia.

AUTHOR: Lyman Stewart D(a); Seaberg Michelle; Hanna Roberta; Zappone Jodee; **Brasel Ken**; Abkowitz Janis L; Prchal Josef T; Schultz John C; Shahidi Nasrollah T

AUTHOR ADDRESS: (a)Immunex Corp., 51 University St., Seattle, WA 98101\*\*USA

JOURNAL: Blood 86 (11):p4091-4096 1995

ISSN: 0006-4971

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

3/3/14 (Item 14 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

(c) 2003 BIOSIS. All rts. reserv.

10103429 BIOSIS NO.: 199698558347

Effect of **flt3** ligand on the ex vivo expansion of human CD34+ hematopoietic progenitor cells.

AUTHOR: McKenna Hilary J(a); De Vries Peter; **Brasel Kenneth**; Lyman Stewart D; Williams Douglas E

AUTHOR ADDRESS: (a)Immunex Corp, 51 University St., Seattle, WA 98101\*\*USA

JOURNAL: Blood 86 (9):p3413-3420 1995

ISSN: 0006-4971

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

3/3/15 (Item 15 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

(c) 2003 BIOSIS. All rts. reserv.

09666657 BIOSIS NO.: 199598121575

Identification of soluble and membrane-bound isoforms of the murine **flt3** ligand generated by alternative splicing of mRNAs.

AUTHOR: Lyman Stewart D(a); James Laura; Escobar Sabine; Downey Heidi; De Vries Peter; **Brasel Ken**; Stocking Kim; Beckmann M Patricia; Copeland Neal G; Cleveland Linda S; Jenkins Nancy A; Belmont John W; Davison Barry L

AUTHOR ADDRESS: (a)Immunex Res. Dev. Corp., 51 University Street, Seattle, WA 98101\*\*USA

JOURNAL: Oncogene 10 (1):p149-157 1995

ISSN: 0950-9232

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

3/3/16 (Item 16 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

(c) 2003 BIOSIS. All rts. reserv.

09305249 BIOSIS NO.: 199497313619

Cloning of the human homologue of the murine **flt3** ligand: A growth factor for early hematopoietic progenitor cells.

AUTHOR: Lyman Stewart D(a); James Laura; Johnson Lisabeth; **Brasel Ken**; De Vries Peter; Escobar Sabine S; Downey Heidi; Splett Roxanne R; Beckmann M Patricia; McKenna Hilary J

AUTHOR ADDRESS: (a)Dep. Mol. Genetics, Immunex Res. and Dev. Corp., 51 University St., Seattle, WA 98101\*\*USA



JOURNAL: Blood 83 (10):p2795-2801 1994  
ISSN: 0006-4971  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

3/3/17 (Item 17 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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09155696 BIOSIS NO.: 199497164066  
Molecular cloning of a ligand for the **FLT3**/FLK-2 tyrosine kinase  
receptor that is biologically active on primitive hematopoietic cells.  
AUTHOR: Lyman Stewart D; James Laura; Vanden Bos Tim; **Brasel Ken**; De  
Vries Peter; Picha Kathleen S; Farrah Terry; Hollingsworth Tamy; Gliniak  
Brian; et al  
AUTHOR ADDRESS: Immunex Res. Dev. Corp., Seattle, WA 98101\*\*USA  
JOURNAL: Journal of Cellular Biochemistry Supplement 0 (18 PART A):p13  
1994  
CONFERENCE/MEETING: Keystone Symposium on Hematopoiesis Breckenridge,  
Colorado, USA January 4-11, 1994  
ISSN: 0733-1959  
RECORD TYPE: Citation  
LANGUAGE: English

3/3/18 (Item 18 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2003 BIOSIS. All rts. reserv.

09154029 BIOSIS NO.: 199497162399  
The effect of the **FLT3** ligand on purified murine pluripotent  
hematopoietic stem cells.  
AUTHOR: De Vries Peter(a); **Brasel Kenneth A**; Vanden Bos Tim; James  
Laura; Beckman M Patricia; McKenna Hilary J; Gliniak Brian C;  
Hollingsworth L T; Picha Kathleen S; et al  
AUTHOR ADDRESS: (a)Immunex Res. and Dev. Corp., Seattle, WA 98101\*\*USA  
JOURNAL: Journal of Cellular Biochemistry Supplement 0 (18B):p177 1994  
CONFERENCE/MEETING: Keystone Symposium on Stem Cells Taos, New Mexico, USA  
January 31-February 7, 1994  
ISSN: 0733-1959  
RECORD TYPE: Citation  
LANGUAGE: English

3/3/19 (Item 19 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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09154020 BIOSIS NO.: 199497162390  
Molecular cloning of a ligand for the **FLT3**/FLK-2 receptor: A  
proliferative factor for early hematopoietic cells.  
AUTHOR: Beckmann M Patricia; Vanden Bos Tim; James Laura; **Brasel Ken**;  
De Vries Peter; Picha Kathleen S; Farrah Terry; Hollingsworth L T;  
Gliniak Brian; et al  
AUTHOR ADDRESS: Immunex Res. and Development Corp., Seattle, WA 98101\*\*USA  
JOURNAL: Journal of Cellular Biochemistry Supplement 0 (18B):p175 1994  
CONFERENCE/MEETING: Keystone Symposium on Stem Cells Taos, New Mexico, USA  
January 31-February 7, 1994  
ISSN: 0733-1959  
RECORD TYPE: Citation  
LANGUAGE: English

3/3/20 (Item 20 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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09097821 BIOSIS NO.: 199497106191  
Molecular cloning of a ligand for the **FLT3**/FLK-2 tyrosine kinase  
receptor: A proliferative factor for primitive hematopoietic cells.  
AUTHOR: Lyman Stewart D; James Laura; Vandenbos Tim; **Brasel Ken**; De  
Vries Peter; Picha Kathleen S; Farrah Terry; Hollingsworth Tamy; Gliniak  
Brian; et al  
AUTHOR ADDRESS: Immunex Res. Dev. Corp., Seattle, WA\*\*USA  
JOURNAL: Blood 82 (10 SUPPL. 1):p87A 1993  
CONFERENCE/MEETING: Thirty-fifth Annual Meeting of the American Society of  
Hematology St. Louis, Missouri, USA December 3-7, 1993  
ISSN: 0006-4971  
RECORD TYPE: Citation  
LANGUAGE: English

3/3/21 (Item 1 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)

14126571 22359187 PMID: 12471102  
Murine plasmacytoid pre-dendritic cells generated from **flt3**  
ligand-supplemented bone marrow cultures are immature APCs.  
Brawand Pierre; Fitzpatrick David R; Greenfield Brad W; **Brasel**  
**Kenneth**; Maliszewski Charles R; De Smedt Thibaut; et al  
Amgen Inc., Seattle, WA 98101.  
Journal of immunology (Baltimore, Md. - 1950) (United States) Dec 15  
2002, 169 (12) p6711-9, ISSN 0022-1767 Journal Code: 2985117R  
Document type: Journal Article  
Languages: ENGLISH  
Main Citation Owner: NLM  
Record type: In Process  
? s s3 and dendritic  
21 S3  
93284 DENDRITIC  
S4 8 S3 AND DENDRITIC  
? rd 4  
...completed examining records  
S5 8 RD 4 (unique items)  
? t s5/3/all

5/3/1 (Item 1 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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14006420 BIOSIS NO.: 200300000449  
Comparative analysis of murine marrow-derived **dendritic** cells  
generated by **Flt3L** or GM-CSF/IL-4 and matured with immune  
stimulatory agents on the in vivo induction of antileukemia responses.  
AUTHOR: Weigel Brenda J(a); Nath Narender; Taylor Patricia A;  
Panoskaltsis-Mortari Angela; Chen Wei; Krieg Arthur M; **Brasel**  
**Kenneth**; Blazar Bruce R  
AUTHOR ADDRESS: (a)Department of Pediatrics, Division of Pediatric  
Hematology/Oncology and Blood and Marrow Transplant, University of  
Minnesota Cancer Center, 420 Delaware St SE, MMC 366, Minneapolis, MN,  
55455, USA\*\*USA E-Mail: weige007@tc.umn.edu  
JOURNAL: Blood 100 (12):p4169-4176 December 1 2002 2002  
MEDIUM: print  
ISSN: 0006-4971  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract

LANGUAGE: English

5/3/2 (Item 2 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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13790194 BIOSIS NO.: 200200419015  
Large numbers of antigen-specific cytotoxic T lymphocytes are generated in vivo when mice are treated with **flt3** ligand to expand **dendritic** cells then immunized with peptides emulsified in incomplete Freund's adjuvant.  
AUTHOR: McKenna Hilary(a); Butz Eric(a); **Brasel Ken**(a); Day Fiona(a); Caron Dania(a); Maliszewski Charlie(a); Liebowitz David(a)  
AUTHOR ADDRESS: (a)Immunex Corporation, Seattle, WA\*\*USA  
JOURNAL: Proceedings of the American Association for Cancer Research Annual Meeting 43p972-973 March, 2002  
MEDIUM: print  
CONFERENCE/MEETING: 93rd Annual Meeting of the American Association for Cancer Research San Francisco, California, USA April 06-10, 2002  
ISSN: 0197-016X  
RECORD TYPE: Citation  
LANGUAGE: English

5/3/3 (Item 3 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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13147121 BIOSIS NO.: 200100354270  
Anti-tumor effect of **dendritic** cells generated ex vivo by **Flt3L** or GM-CSF/IL4 with immune stimulatory agents (TNFalpha, LPS and CpG oligodeoxynucleotides).  
AUTHOR: Weigel Brenda J(a); Nath Narender; Taylor Patricia A; Panoskaltsis-Mortari Angela; Krieg Arthur M; **Brasel Kenneth**; Blazar Bruce R  
AUTHOR ADDRESS: (a)Immunex, Seattle, WA\*\*USA  
JOURNAL: Proceedings of the American Association for Cancer Research Annual Meeting 42p25 March, 2001  
MEDIUM: print  
CONFERENCE/MEETING: 92nd Annual Meeting of the American Association for Cancer Research New Orleans, LA, USA March 24-28, 2001  
ISSN: 0197-016X  
RECORD TYPE: Citation  
LANGUAGE: English  
SUMMARY LANGUAGE: English

5/3/4 (Item 4 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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13084327 BIOSIS NO.: 200100291476  
Effects of IL-6 on **FLT3** ligand-mediated murine DC development.  
AUTHOR: **Brasel Kenneth A**(a); Maliszewski Charles R  
AUTHOR ADDRESS: (a)Immunobiology, Immunex Corp, Seattle, WA\*\*USA  
JOURNAL: Blood 96 (11 Part 1):p33a November 16, 2000  
MEDIUM: print  
CONFERENCE/MEETING: 42nd Annual Meeting of the American Society of Hematology San Francisco, California, USA December 01-05, 2000  
SPONSOR: American Society of Hematology  
ISSN: 0006-4971  
RECORD TYPE: Abstract  
LANGUAGE: English

SUMMARY LANGUAGE: English

5/3/5 (Item 5 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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12781067 BIOSIS NO.: 200000534690  
Generation of murine **dendritic** cells from **flt3**  
-ligand-supplemented bone marrow cultures.  
AUTHOR: **Brasel Kenneth**(a); De Smedt Thibaut; Smith Jeffery L;  
Maliszewski Charles R  
AUTHOR ADDRESS: (a)Immunobiology Department, Immunex Corporation, 51  
University St, Seattle, WA, 98101\*\*USA  
JOURNAL: Blood 96 (9):p3029-3039 November 1, 2000  
MEDIUM: print  
ISSN: 0006-4971  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English  
SUMMARY LANGUAGE: English

5/3/6 (Item 6 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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12589890 BIOSIS NO.: 200000343392  
Mice lacking **flt3** ligand have deficient hematopoiesis affecting  
hematopoietic progenitor cells, **dendritic** cells, and natural killer  
cells.  
AUTHOR: McKenna Hilary J(a); Stocking Kim L; Miller Robert E; **Brasel  
Kenneth**; De Smedt Thibaut; Maraskovsky Eugene; Maliszewski Charles R;  
Lynch David H; Smith Jeffrey; Pulendran Bali; Roux Eileen R; Teepe Mark;  
Lyman Stewart D; Peschon Jacques J  
AUTHOR ADDRESS: (a)Immunobiology Department, Immunex Corporation, 51  
University St, Seattle, WA, 98101\*\*USA  
JOURNAL: Blood 95 (11):p3489-3497 June 1, 2000  
MEDIUM: print  
ISSN: 0006-4971  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English  
SUMMARY LANGUAGE: English

5/3/7 (Item 7 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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10698320 BIOSIS NO.: 199799319465  
Dramatic increase in the numbers of functionally mature **dendritic**  
cells in **Flt3** ligand-treated mice: Multiple **dendritic** cell  
subpopulations identified.  
AUTHOR: Maraskovsky Eugene(a); **Brasel Ken**; Teepe Mark; Roux Eileen R;  
Lyman Stewart D; Shortman Ken; McKenna Hilary J  
AUTHOR ADDRESS: (a)Immunex Corporation, 51 University St., Seattle, WA  
98101\*\*USA  
JOURNAL: Journal of Experimental Medicine 184 (5):p1953-1962 1996  
ISSN: 0022-1007  
RECORD TYPE: Abstract  
LANGUAGE: English

5/3/8 (Item 1 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)

14126571 22359187 PMID: 12471102

Murine plasmacytoid pre-**dendritic** cells generated from **flt3**  
ligand-supplemented bone marrow cultures are immature APCs.  
Brawand Pierre; Fitzpatrick David R; Greenfield Brad W; **Brasel**  
**Kenneth**; Maliszewski Charles R; De Smedt Thibaut; et al  
Amgen Inc., Seattle, WA 98101.  
Journal of immunology (Baltimore, Md. - 1950) (United States) Dec 15  
2002, 169 (12) p6711-9, ISSN 0022-1767 Journal Code: 2985117R  
Document type: Journal Article  
Languages: ENGLISH  
Main Citation Owner: NLM  
Record type: In Process  
? s flt3? and dendritic  
3578 FLT3?  
93284 DENDRITIC  
S6 817 FLT3? AND DENDRITIC  
? s s6 and py<1996  
Processing  
Processing  
817 S6  
38109120 PY<1996  
S7 2 S6 AND PY<1996  
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...completed examining records  
S8 2 RD S7 (unique items)  
? t s8/7/all

8/7/1 (Item 1 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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10166594 BIOSIS NO.: 199698621512  
In vivo administration of **FLT3** ligand but not G-CSF nor GM-CSF  
results in the generation of large numbers of **dendritic** cells in  
mice.  
AUTHOR: Maraskovsky E; McKenna H J; Brasel K; Tepee M; Roux E; Lyman S D;  
Williams D E  
AUTHOR ADDRESS: Immunex Corp., Seattle, WA\*\*USA  
JOURNAL: Blood 86 (10 SUPPL. 1):p423A 1995  
CONFERENCE/MEETING: 37th Annual Meeting of the American Society of  
Hematology Seattle, Washington, USA December 1-5, 1995  
ISSN: 0006-4971  
RECORD TYPE: Citation  
LANGUAGE: English

8/7/2 (Item 2 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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10166582 BIOSIS NO.: 199698621500  
The effect of **FLT3** ligand and/or c-kit ligand on the generation of  
**dendritic** cells from human CD34+ bone marrow.  
AUTHOR: Maraskovsky E; Roux E; Tepee M; McKenna H J; Brasel K; Lyman S D;  
Williams D E  
AUTHOR ADDRESS: Immunex Corp., Seattle, WA\*\*USA  
JOURNAL: Blood 86 (10 SUPPL. 1):p420A 1995  
CONFERENCE/MEETING: 37th Annual Meeting of the American Society of  
Hematology Seattle, Washington, USA December 1-5, 1995  
ISSN: 0006-4971  
RECORD TYPE: Citation